

PLYMPTON ST. MARY
RURAL DISTRICT COUNCIL.

ANNUAL REPORT

FOR 1902,

OF THE

Medical Officer of Health,

S. NOY SCOTT,

D.P.H., Lond., L.R.C.P., Lond., M.R.C.S., Eng.

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TO THE
PLYMPTON St. MARY
Rural District Council.

ANNUAL REPORT

OF THE MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1902.

GENTLEMEN,

Herewith I have the honour of submitting to you my Annual Report of the Public Health of the Plympton St. Mary Rural District for the year 1902.

As the report is not only for your own information, but also for that of the County Council and the Local Government Board, it will necessarily contain various statements which may appear superfluous to you, but yet are of importance to those who have to derive their knowledge of local circumstances and questions directly from this report. It will, therefore, be arranged on the basis suggested by the Local Government Board and will therefore include :—

- (1) A brief description of the physical features and characters of the District ;
- (2) The vital statistics of the year and comparisons between this and preceding years ;

- (3) Notes on the diseases prevalent during the year, and the means adopted for dealing with infectious diseases especially ;
- (4) A description in detail of the sanitary conditions of the particular parishes and villages with notes on the work done during the year, and on what is wanted in the future. This section should be read and compared with the report of your Sanitary Inspector, Mr. W. E. Horton.
- (5) Notes on the powers possessed and exercised by you over Buildings, Slaughter-houses ; Dairies. Cowsheds and Milkshops ; Bakehouses, Factories, and Workshops ; and offensive trades, &c.

In the table of statistics prepared for the year it will be noticed that I have estimated the population to have increased from that of last year. In the face of the fact that it had decreased considerably between 1891 and 1901, I feel it is necessary to give the reasons which have induced me to conclude that a slight increase has appeared since 1901. First the births registered in every parish were in excess of the deaths, and in the North District the apparent gain from that was 115, and in the South 87. Together these represent a total gain of 202. In addition to this there were several new houses built and occupied during the year, and from my general knowledge of the district I know that many of these are occupied by people who have hitherto lived outside the district. If I estimate that each new house occupied represents only three persons, the gain from that is 81. Adding this to the 202 gained by excess of births over deaths the total apparent gain is 283. But on the other hand, as there was no doubt a certain migration from the district, I decided to subtract 53 from the 283, and therefore conclude that the total real gain is 230. The greatest relative gain is in the South District, which

I estimate to have increased by 100 during the year, whilst that of the North is 130.

The value of vital statistics depends so largely on the accuracy with which the population can be estimated that I have taken considerable trouble to be fair in my estimate.

The Census, however, being taken only once in 10 years, it is almost impossible to avoid errors, and I cannot therefore omit this opportunity of again stating my opinion that a quinquennial census ought to be established.

Factory and Workshops Acts, 1901.

During the year I have inspected the Bakehouses and factories in the district, and have almost completed the register. I deal with the work under these acts in a later paragraph.

I am, Gentlemen,

Your obedient Servant,

S. NOY SCOTT,

Medical Officer of Health.

ANNUAL REPORT

OF THE MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1902.

THE area of the Plympton St. Mary Rural District for Sanitary purposes is 71,558 acres.

The district is situated at the extreme west of the South Hams and is bounded on the North by Dartmoor and the River Tavy ; on the South by the English Channel, and the Towns of Plymouth and Devonport ; on the West by Plymouth Sound, Plymouth, Devonport, and the River Tamar ; on the East by the hilly district of the South Hams.

From the hills lying on the East and North there are a series of undulations, running mostly towards the sea on the South and West, and along the valleys thus formed are the Rivers Erme, Yealm, and Plym, with their tributaries.

In the North part, the land is chiefly moor-land, and contains valuable china clay works. The remainder of the district is mainly agricultural, and, in most places, in a good state of cultivation. The surface is well wooded.

The GEOLOGY of the district varies much in the different localities. In the North there are large deposits of granite, which in places is disintegrated and forms the china clay beds ; whilst in the south-west are very extensive and thick beds of limestone. Slate is found in large quantities on the banks of the Plym, in the parishes of Egg Buckland and Plympton St. Mary, whilst scattered throughout the district are shillet and dunstone.

The CLIMATE is mild and humid, and the rainfall abundant, but no official meteorological records are kept. I am, however, able to include a statement as to the rain-fall of last year, for which I am indebted to J. Little, Esq., of Higher Hooe. *Vide page 44*

The WATER SUPPLY. The district contains abundant and satisfactory water in the shape of streams and springs, but these are very unequally distributed, and therefore some of the villages—especially in the southern part of the district—are so far from them as to be almost entirely dependent upon shallow well and stored rain water.

The water is derived from the following sources :—

- (1) Upland surface water from Dartmoor and similar places which, collecting in small streams, yields a plentiful supply of good and pure water.
- (2) Springs and deep wells : These are found in various localities, and yield a water whose quality depends entirely upon the particular soil in which the well is, In the limestone district, the water is sometimes very hard from dissolved carbonate and sulphate of lime and except for the hardness, the water is good, and generally speaking, very pure, *i.e.*, free from organic pollution.
- (3) Shallow Wells : These are scattered throughout the district, and very largely consist of mere surface water. These wells afford a water which may be good or very bad, according to their depth, position, (proximity to cess-pit, etc.), and liability to surface pollution. A Sanitary Authority should never be content with a water supply which is derived from shallow wells.

During the past few years the water supply of the district has been steadily improved, and the Council is persistently endeavouring to satisfactorily fulfil its statutory duties as a provider of pure public supplies of water, and as evidence of this I merely note the fact that during my tenure of office good and efficient public water supplies have been established in Plymstock, Dunstone, Yealmpton, Cornwood, Lutton, Egg Buckland, and Sparkwell.

SEWAGE AND ITS DISPOSAL :—

Several of the larger villages are drained by a system of sewers by which the sewage is sent into the sea, or water courses, or is carried on to the land and so disposed of by a method of irrigation.

In many of the villages there are several cases in which the sewage from two or more houses is collected in cess-pits. These not only require periodical cleansing and constant attention, but every now and again they produce serious nuisances by suddenly overflowing, especially after heavy rains.

A great number of the cottages and isolated houses are provided with closets over small cess-pits, but year by year these are gradually being replaced by earth closets, worked on the bucket system, a method of sewage-disposal at once safe and reliable. During the past year the Sanitary Inspector, has, I am glad to say, been able to abolish a considerable number of these cess-pits.—*vide his report.*

The Council is, I am glad to say, fully alive to the necessity of properly and safely dealing with the sewage of the various parts of the district. I refer in detail in my notes on the different parishes to the method in use, and point out where improvements are needed or are being made. It is, however, an exceedingly difficult

matter to deal properly with the sewage of some of the villages, especially of those which lie at or near sea level ; and even where the engineering difficulties are surmountable, the acquisition of land for disposal works is almost impossible. In my opinion, District Councils should be given far greater powers for obtaining land for sewage works, and until they have, I fear that common cess-pits, with their accompanying dangers, must remain.

You, as a Council, are peculiarly hampered by the large number of powerful authorities you have to satisfy before you are allowed to carry out any system of sewage disposal, for not only have you to obtain the consent of the Local Government Board and the County Council, but you have also in some instances to submit your proposals to such a conglomeration of authorities as the Board of Trade, the Admiralty, the Duchy of Cornwall, the War Office, the Cattewater Commissioners, the Corporations of Plymouth and Devonport, in addition to the various Parish Councils, and as all these seem to have varying standards of what a sewage scheme should be, it is obvious that prolonged and difficult negotiations have often to be gone through, and I am bound to say that in some cases opposition which can only be described as vexatious has to be met.

Vital Statistics.

For Registration purposes, the district is divided into two sub-districts :—

- (a) The North or Plympton containing 11 parishes, and
- (b) The South or Yealmpton containing 8 parishes.

The population of the whole district, which at the 1901 census was 19,780, is estimated for 1902 to be 20,010, and is distributed in the various parishes as follows :—

| NAME OF PARISH. | Area in Acres. | Population 1891 census. | Population 1901 census. | Estimate 1902. |
|---|----------------|-------------------------|-------------------------|----------------|
| North Sub-district :— | | | | |
| Bickleigh | 2980 | 302 | 296 | 301 |
| Compton | 160 | — | 274 | 281 |
| Cornwood | 10680 | 1258 | 1004 | 1012 |
| Egg Buckland | 3149 | 1833 | 1200 | 1206 |
| Harford | 3680 | 172 | 137 | 142 |
| Plympton St. Mary, (including Ecclesiastical parish of Sparkwell) | 11200 | 3471 | 3837 | 3870 |
| Plympton St. Maurice | 170 | 1139 | 1117 | 1119 |
| St. Budeaux | 1560 | 2243 | 1850 | 1888 |
| Shaugh Prior | 7170 | 714 | 785 | 800 |
| Tamerton Folliott | 3910 | 1118 | 1102 | 1112 |
| Weston Peverell | 399 | 811 | 198 | 199 |
| Total | 45058 | *13061 | 11800 | 11930 |
| South Sub-district :— | | | | |
| Brixton | 3060 | 622 | 658 | 658 |
| Ermington (excluding Urban District of Ivybridge) | 4920 | 900 | 847 | 861 |
| Holbeton | 4800 | 949 | 850 | 856 |
| Newton Ferrers | 3090 | 710 | 611 | 619 |
| Plymstock (including Ecclesiastical Parish of Hooe) | 2860 | 3162 | 3180 | 3226 |
| Revelstoke | 1460 | 471 | 402 | 410 |
| Wembury | 3070 | 524 | 501 | 507 |
| Yealmpton | 3240 | 879 | 931 | 943 |
| Total South | 26500 | 8217 | 7980 | 8080 |
| Total North | 45058 | 13061 | 11800 | 11930 |
| Total Whole District | 71558 | *21278 | 19780 | 20010 |

* The population of the original rural district as it existed in 1891 before the exclusion of Laira Green, and parts of Egg Buckland, Compton, St. Budeaux and Western Peverell by the extension orders of Plymouth and Devonport was 21,759, and the area 74,320 acres.

Inhabited Houses in the District.

The number of houses in the whole district inhabited at the time of the 1891 census was 4333 ; since then 116 were built in 1892, 88 in 1893, 75 in 1894, 143 in 1895, 182 in 1896, 168 in 1897, 142 in 1898, 29 in 1899, 37 in 1900, 37 in 1901, and 27 in 1902. After allowing for the number of houses transferred to Plymouth from Egg Buckland, Laira Green, and Weston Peverell, and for the 40 added to the district from Compton in 1897, and for those transferred to Devonport by the recent Extension order, I estimate the number of houses in the district to be **4043**, which gives an average of **4·94** persons per house.

In this, however, the Crownhill Barracks with a population of 399, and the Workhouse at Plympton, with a population of 127, are counted as single houses. A truer estimate of the average number of persons per house will be obtained by excluding both these "Institutions." The average is then **4·8** per house.

Births and Birth Rates.

The following births were registered in 1902.

| | Males. | Females. | Total. | 1901. |
|------------------------|--------|----------|--------|-------|
| North Sub-district ... | 149 | 119 | 268 | 293 |
| South Sub-district ... | 85 | 82 | 167 | 178 |
| Whole District ... | 234 | 201 | 435 | 471 |

This gives a Birth rate for the **North** of **22·46** per **1000**, as compared with 24·83 in 1901 ; 23·28 in 1900 ; 25·17 in 1899 ; 27·5 in 1898 ; 30·31 in 1897 ; 28·18 in 1896 ; 29·16 in 1895 ; 25·65 in 1894 ; 27·71 in 1893 ; 25·89 in 1892 ; and 28·72 in 1891.

For the **South** the rate was **20·66** per **1000**, as compared with 22·3 in 1901 ; 24·2 in 1900 ; 22·17 in 1899 ; 24·83 in 1898 ; 23·65 in 1897 ; 24·07 in 1896 ; 24·38 in 1895 ; 23·32 in 1894 ; 27·29 in 1893 ; 26·83 in 1892 ; and 25·8 in 1891.

For the **Whole** district the rate was **21·73** per **1000** as compared with 23·81 in 1901 ; 23·62 in 1900 ; 23·91 in 1899 ; 26·56 in 1898 ; 27·88 in 1897 ; 26·73 in 1896 ; 27·75 in 1895 ; 24·84 in 1894 ; 27·55 in 1893 ; 26·25 in 1892 ; and 27·5 in 1891.

The average for the last ten years (1892-1901) is 25·98.

The birth-rate for the whole of Rural England and Wales during 1902 was 27·4

Marriage Rate.

During the year 118 marriages were registered. This is 1 more than last year.

The marriage rate for this year (or persons married per 1000 of the population) for the district is 11·79 per 1000, as compared with 11·83 in 1901, 11·83 in 1900, 11·32 in 1899, 11·37 in 1898, 12·58 in 1897, 15·47 in 1896, 10·96 in 1895, 13 in 1894, 12·01 in 1893, and 12·1 in 1892.

Deaths and Death Rates.

The total deaths registered as taking place within the district in 1901 were as follows :—

| | Males. | Females. | Total. | 1901. |
|--------------------|--------|----------|--------|-------|
| North Sub-district | 81 | 74 | 155 | 157 |
| South „ ... | 36 | 44 | 80 | 91 |
| Whole district | 117 | 118 | 235 | 248 |

Recorded death rate per 1000, based on above figures :—

| | 1902. | 1901. | 1900. | 1899. | 1898. | 1897. |
|--------------------|-------|-------|-------|-------|-------|-------|
| North sub-district | 12·99 | 13·3 | 16·53 | 16·41 | 15·69 | 14·87 |
| South „ | 9·9 | 11·4 | 13·59 | 17·67 | 16·12 | 15·93 |
| Whole district | 11·74 | 12·53 | 15·31 | 16·94 | 15·84 | 15·25 |

The average rate for the preceding 10 years is 15·85.

Corrected Death Rates.

Of the deaths registered in the North sub-district, 8 occurred in the following institutions :—

| | | |
|-----------------------------------|-----|---|
| Plympton St. Mary Union Workhouse | ... | 5 |
| Plympton House Asylum | ... | 3 |
| | | — |
| | | 8 |
| | | — |

Of these 8 there were 3 of persons not belonging to the district, and one death of a resident was registered in Plymouth, so that the actual number of deaths amongst residents in the North District was 153.

In the South sub-district no death of a non-resident was registered.

After making allowance for the foregoing, the corrected death rates, calculated on the deaths of residents only, are as follows :—

| | 1902. | 1901. | 1900. | 1899. | 1898. | 1897. |
|--------------------|-------|-------|-------|-------|-------|-------|
| North sub-district | 12·82 | 13·3 | 16·26 | 16·3 | 15·9 | 15·00 |
| South „ | 9·9 | 11·4 | 13·4 | 17·06 | 15·4 | 15·3 |
| Whole district | 11·64 | 12·53 | 15·10 | 16·67 | 15·75 | 15·65 |

The death-rate for Rural England and Wales in 1902 was 15·3.

The corrected death rates for the respective parishes (excluding public institutions) are as follows :—

| | 1902. | 1901. | | 1902. | 1901. |
|-------------------|-------|-------|-----------------|-------|-------|
| Harford ... | 0·0 | 7·3 | Plympton | | |
| Compton ... | 3·5 | 3·6 | St. Maurice | 12·7 | 14·3 |
| Ermington ... | 5·8 | 12·9 | Plympton | | |
| Wembury ... | 5·9 | 7·9 | St. Mary | 13·57 | 11·5 |
| Newton Ferrers | 8·07 | 9·8 | Brixton ... | 13·6 | 10·6 |
| Shaugh Prior... | 8·7 | 8·9 | St. Budeaux ... | 13·7 | 15·6 |
| Revelstoke ... | 9·7 | 9·9 | Holbeton ... | 14·01 | 14·1 |
| Tamerton Folliott | 9·8 | 13·6 | Weston Peverell | 15·06 | 25·2 |
| Plymstock .. | 9·9 | 11·6 | Cornwood ... | 15·8 | 12·9 |
| Yealmpton ... | 10·6 | 10·7 | Bickleigh ... | 19·9 | 13·5 |
| Egg Buckland | 10·7 | 10·0 | | | |

I have given these parochial death rates as in previous years, but much importance cannot be attached to them, the respective populations being too small to afford statistics of any great value.

The deaths as registered were distributed throughout the year as follows :—

| | North sub. district. | | | South sub. district. | | | Whole district. | | |
|-------------|----------------------|--------|--------|----------------------|--------|--------|-----------------|--------|--------|
| | Under 5 | Over 5 | Total. | Under 5 | Over 5 | Total. | Under 5 | Over 5 | Total. |
| 1st quarter | 9 | 30 | 39 | 4 | 20 | 24 | 13 | 50 | 63 |
| 2nd quarter | 12 | 39 | 51 | 4 | 18 | 22 | 16 | 57 | 73 |
| 3rd quarter | 10 | 18 | 28 | 4 | 9 | 13 | 14 | 27 | 41 |
| 4th quarter | 7 | 28 | 35 | 1 | 20 | 21 | 8 | 48 | 56 |
| Whole year | 38 | 115 | 153 | 13 | 67 | 80 | 51 | 182 | 233 |

Classification of Causes of Death :

1902.

| Diseases of— | | Nth Sub-District. | Sth Sub-District. | Total. | 1901. | 1900. | 1899. | 1898. | 1897. |
|----------------------|-----|-------------------|-------------------|--------|-------|-------|-------|-------|-------|
| Nervous System | ... | 24 | 14 | 38 | 36 | 29 | 35 | 37 | 50 |
| Heart | ... | 19 | 6 | 25 | 36 | 34 | 31 | 31 | 25 |
| Respiratory System | | 29 | 16 | 45 | 58 | 79 | 88 | 87 | 82 |
| Phthisis | .. | 6 | 4 | 10 | 17 | 17 | 17 | 28 | 19 |
| Zymotic Diseases | ... | 10 | 5 | 15 | 11 | 18 | 30 | 62 | 25 |
| Cancer | ... | 9 | 9 | 18 | 14 | 21 | 21 | 18 | 14 |
| Old Age | ... | 23 | 9 | 32 | 26 | 44 | 41 | 32 | 34 |
| Injuries and Suicide | | 6 | 8 | 14 | 7 | 7 | 9 | 13 | 17 |
| All other causes | ... | 33 | 13 | 46 | 60 | 63 | 68 | 82 | 90 |
| Total | ... | 153 | 80 | 233 | 248 | 295 | 323 | 362 | 337 |

Deaths from Zymotic Diseases.

| | North Sub- District | South Sub- District | 1902 Total | 1901 | 1900 | 1899 | 1898 | 1897 |
|---------------------------|---------------------------|---------------------------|---------------|------|------|------|------|------|
| Small Pox | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Measles | 1 | 1 | 2 | 3 | 0 | 5 | 13 | 3 |
| Scarlet Fever | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Diphtheria | 3 | 3 | 6 | 2 | 5 | 1 | 2 | 1 |
| Whooping Cough | 4 | 0 | 4 | 0 | 1 | 4 | 17 | 5 |
| Enteric Fever | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 0 |
| Diarrhœa | 2 | 1 | 3 | 5 | 11 | 17 | 26 | 13 |
| Other Zymotic Diseases | 0 | 10 | 10 | 0 | 0 | 2 | 0 | 3 |
| Totals ... | 10 | 65 | 1615 | 11 | 18 | 30 | 62 | 25 |

The "seven principal" Zymotic Diseases caused 15 deaths. and this gives a Zymotic Death Rate of 0·74 as compared with :—

| | | | | | | |
|------|------|------|------|------|------|------|
| 1901 | 1900 | 1899 | 1898 | 1897 | 1896 | 1895 |
| 0·55 | 0·93 | 1·46 | 2·71 | 0·99 | 2·08 | 1·29 |

The rate for rural England and Wales in 1902 was 1·14.

Deaths from all causes at various age periods.

| | 1902. | | | 1901 | 1900 | 1899 | 1898 | 1897 |
|-----------------------|---------------------------|---------------------------|--------------------|------|------|------|------|------|
| | North sub- district | South sub- district | Whole District. | | | | | |
| Under 1 year ... | 30 | 10 | 40 | 40 | 47 | 61 | 101 | 95 |
| 1 year & under 5 yrs. | 8 | 3 | 11 | 17 | 22 | 23 | 45 | 16 |
| 5 do. 15 do. | 6 | 6 | 12 | 9 | 10 | 3 | 18 | 15 |
| 15 do. 25 do. | 8 | 2 | 10 | 16 | 15 | 14 | 11 | 20 |
| 25 do. 65 do. | 39 | 20 | 59 | 67 | 73 | 83 | 84 | 89 |
| 65 do. upwards... | 62 | 39 | 101 | 99 | 128 | 139 | 103 | 102 |
| Totals ... | 153 | 80 | 233 | 248 | 295 | 323 | 362 | 337 |

Of the deaths over 65 there were :—

| | 1902 | 1901 | 1900 | 1899 | 1898 | 1897 | 1896 | 1895 |
|--------------------------|------|------|------|------|------|------|------|------|
| 44 between 70 and 80 ... | | 42 | 56 | 54 | 49 | 41 | 47 | 59 |
| 36 „ 80 and 90 ... | | 31 | 37 | 52 | 29 | 36 | 21 | 45 |
| 0 of 90 and over ... | | 4 | 7 | 3 | 2 | 9 | 0 | 10 |

Infant Mortality : or deaths of Infants under one year—

This is estimated as a ratio per 1000 births registered during the year ; and as these numbered 435, the infant mortality was **91·95 per 1000**.

| | | | | | | | | |
|--------------|-------|--------|--------|--------|-------|-------|------|-------|
| 1902 | 1901 | 1900 | 1899 | 1898 | 1897 | 1896 | 1895 | 1894 |
| 91·95 | 84·92 | 103·29 | 133·77 | 166·39 | 154·2 | 115·4 | 96·3 | 115·5 |

The rate for Rural England and Wales for 1902 was 119.

The year has been marked by the following :

The **Birth Rate** is the lowest that has been recorded during the past 10 years ; is 4·2 per 1000 below the average for that period ; 2·1 per 1000 below that for last year, and even 5·7 below that for rural England and Wales for that year.

This falling birth rate is a serious question, and one which cannot be satisfactorily dealt with in such a report as this. The probable causes are that men and women now postpone marriage to a later age than was the custom in times gone by, and next, that the greater attractions which a town life offers to the younger men and women induce them to forsake the rural districts and settle down in towns. The latter reason is the one which probably applies more directly to our district, for we lie on the borders of two large towns, in which labour is generally in demand, and where higher wages can be obtained. Again, it cannot be overlooked that in country districts the houses provided for the labourers are often inconvenient and unattractive, and do not provide the accommodation which modern ideas

demand. Not only this, but there is in some villages a decided want of new cottages, for as the older ones fall into bad condition the landlords cannot be induced to repair them, or replace them by new ones. The fact is, that although the wages earned by the farm labourer are higher than they used to be (here they vary from 15s. to 18s. a week, with a cottage), yet he is unable or unwilling to pay such a rental as would repay the capital expenditure which the erection of decent cottages demands. Whether this inability arises from a general want of thrift, or unwise and excessive expenditure, in non-essentials, I am not quite able to decide; but I think that both are important causes, and at any rate it cannot be disputed that the average cottager now seems quite unable to expend his wages to the same advantage as his predecessors. I am afraid that the eternal tally-man, with his weekly demands, makes sad and comparatively enormous demands on the cottager's wages. Scarcely a day passes but that some insinuating traveller tempts the cottager to buy some article, and deceives him into thinking that by paying a small sum once a week he will get the thing "cheap."

The **Death Rate** is a remarkably low one, for not only is it the lowest recorded during the past ten years, but it is 0.9 below that of last year, which was also a record year. It is 3.9 below the average of the last ten years, and 3.6 below that for England and Wales during 1902.

The **Infant Mortality** is the lowest but one recorded during the past 10 years. It is slightly above (7.03 per 1000) that of last year, but this is no doubt due to the decreased birth rate. As compared with the average for the last ten years it is 28.25 below that, and it is also 27.05 below that for rural England and Wales for 1902.

The **Zymotic Death Rate** is a very low one, is the lowest but one for the last 10 years, and is only about one half of that of rural England and Wales for 1902.

Although the low birth rate, together with the absence of any great epidemic, and especially the small number of deaths from Diarrhœa are the chief causes of these low death rates, yet I think they may also be fairly, in part, ascribed to the vigorous sanitary administration which you, as a Council, pursue.

Measles. This disease prevailed extensively in the Southern District during the year. Occasional cases were noticed early in the year, but in April an epidemic broke out at Yealmpton, and thence spread to Brixton and Plymstock, and subsided ultimately about the end of September. The disease is not a notifiable one, and it is therefore impossible even to approximately state the number of cases, but in Yealmpton and Turnchapel the cases were so numerous as to necessitate the closing of the public and elementary schools.

In spite of the large number of children infected, only 2 deaths were due to this disease, one in Plymstock, and the other in St. Budeaux.

Whooping Cough. Four deaths were due to this disease; one in each of the following parishes:—Bickleigh, Egg Buckland, Plympton St. Mary, and Plympton St. Maurice.

Scarlet Fever. This disease was very widely distributed during the year, the only months in which cases were not notified being May and June. The cases were notified as follows:—in January, 6; February, 4; March, 4; April, 1; July, 1; August, 2; September, 4; October, 11; November, 8; and December, 4. Total, 45.

| | | | |
|------------------------|----|--------------------------|---------------------|
| In Cornwood | 11 | cases were notified from | Jan. 1 to Dec. 1 |
| „ Plympton St. Mary | 11 | „ „ | Feb. 11 to Nov. 18 |
| „ Plympton St. Maurice | 5 | „ „ | July 14 to Oct. 12 |
| „ St. Budeaux | 10 | „ „ | Jan. 10 to Dec. 19 |
| „ Ermington | 2 | „ „ | March 3 to Sept. 29 |
| „ Plymstock | 2 | „ „ | Oct. 2 to Nov. 11 |
| „ Shaugh | 2 | „ „ | On Jan. 18 |
| „ Brixton | 1 | case was | „ Jan 5. |
| „ Revelstoke | 1 | „ „ | March 3rd |
| Total | 45 | | |

In spite of the large number of cases no death was due to this disease. Scarlet Fever appears to be gradually becoming less dangerous to life than it used to be. This is probably due to the greater care which is exercised in its treatment, and to the fact that people are more apprehensive of its possible dangers. There is also a growing opinion that it is becoming less infectious. Although I think there are strong reasons for this opinion, yet the fact that stricter and more prompt precautions are now invariably taken to prevent the disease spreading is undoubtedly an important factor in reducing its infectious power.

It is interesting to note that of the forty-five cases which were notified during the year, twenty-five were single cases in separate houses. The remaining twenty cases were distributed as follows :—

| | | |
|---------------------------|-----|----|
| 6 houses had 2 cases each | ... | 12 |
| 1 house „ 3 „ | ... | 3 |
| 1 „ „ 5 „ | ... | 5 |

The last house afforded an example of the difficulty there is in effectively disinfecting a cottage. The first case appeared on July 14th, and the remaining four at intervals until October 12th, and this in spite of *three* separate and distinct attempts to disinfect the house.

On November 10th, I advised the closing of the Infant School at Lutton, Cornwood, because of the number of children suffering from or living in houses infected with Scarlet Fever.

Diphtheria. During the year 23 cases were notified as compared with 22 during 1901. They were distributed as follows :—

| | Cases notified | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|-------------------|----------------|------|------|------|-------|-----|------|------|------|-------|------|------|------|
| Plympton St. Mary | 3 | .. | .. | 2 | .. | .. | .. | .. | 1 | .. | .. | .. | .. |
| St. Budeaux | 6 | 3 | 3 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Shaugh | 6 | 1 | 2 | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 2 |
| Holbeton | 5 | 2 | 2 | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. |
| Ermington | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 |
| Newton Ferrers | 1 | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. |
| Revelstoke | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | 23 | 7 | 7 | 2 | .. | .. | 1 | .. | 1 | 1 | .. | 1 | 3 |

Of these six were fatal, two in St. Budeaux, one in Shaugh, and three in Holbeton.

In Holbeton, four of the five notified, and in Shaugh three of the six notified were part of the epidemics which appeared in the latter part of 1901, and to which reference was made in my last year's report. The disease was so obviously connected with school attendance in Holbeton, that on January 1st I advised the closing of the schools for four weeks. Here it is interesting to note that the schoolmaster was one of the patients and that on January 26th he was so apparently well that he was anxious to begin duty, but knowing the persistent way in which the Diphtheria "germ" continues to exist, I advised a bacteriological examination being made. This was done and the "germ" was proved to be still present. I therefore forbade his resuming duty, and on February 11th I advised another examination which now failed to detect any of the bacteriæ. On the 18th February I pronounced him free from the disease, and consented to his returning to school.

In St. Budeaux the cases were coincident with a small outbreak of Scarlet Fever.

In Shaugh three cases, which appeared during November and December, led me to make a special investigation of the schools and houses there. I could find no sanitary defects which appeared capable of producing the disease, but on examining the throats of the school-children, although I found a large proportion shewed evidences of Chronic Catarrh, yet none appeared suspicious enough to justify exclusion from, or closing of the school. The three cases were strictly isolated, the house being practically placed in quarantine, and I am glad to say with good result, as no further case has appeared.

Enteric Fever. Four cases were notified during the year, two being in Plymstock, and two in Yealmpton.

I am glad to say neither of these were fatal, although all were very serious cases. I am further glad to say that I had good evidence in all cases that neither could be attributed to any local remediable insanitary causes, and as they are all interesting and valuable examples of how this disease is caused I will describe each.

CASE 1. A sailor, who had been at sea for two weeks, landed at Hull, where he spent three or four days, including the August Bank Holiday, "on the spree." As part of his pleasures he partook of oysters. About ten days after leaving Hull, and whilst still at sea, he developed the early symptoms of Enteric Fever, and ultimately reached his home with a well marked attack.

CASE 2. A man, whilst engaged in driving a horse along a country road on a hot day in September, became so thirsty that he drank some water from a stagnant wayside pool, and this was soon followed by a profuse diarrhœa, which ultimately developed into an illness with all the symptoms and sequelæ of Enteric Fever.

CASE 3. A lady eat some cockles which she bought of a travelling fish-hawker, and which were afterwards proved to have been imported and stale. These cockles were so "peculiar" in flavour that no other member of her family would eat any of them, and about eight or nine days after the lady became seriously ill, with a definitely marked attack of Enteric Fever.

CASE 4. This was a domestic servant who worked by day in the house occupied by Case 3, and I found strong evidence that she became infected through surreptitiously partaking of some of the food (jellies, junkets and milk), which had been prepared for, and partially eaten by, Case 3. The girl did not live always in the house, but went to her own home each night to sleep. It is true that there were sanitary defects in the two houses occupied by both these cases, but as there were several inmates in each house who remained free from the disease, and to whom all other possible causes of the disease were common, I think it is not unreasonable to conclude that Case 3 arose as I suggest, and that Case 4 was the result of direct infection from Case 3.

It is noteworthy, therefore, that two of the foregoing cases can be apparently traced to infected shell-fish, and I am glad to see that there is a growing opinion that the sale of shell-fish from sewage polluted banks and estuaries should be legally forbidden. Should this matter be brought officially to your notice, I hope you, as a Sanitary Authority, will support any petition or bill which may be promoted for that object.

Diarrhœa. There was no epidemic of this disease during the year, and only three fatal cases were reported.

Puerperal Fever. Only one case, and that a doubtful one, was reported.

Phthisis. It is gratifying to note that this disease caused ten deaths only, as compared with 17 during 1901, and

17 in 1900, and that there has been a very marked fall in the death rate from this disease during the last ten years.

Closure of Schools.—

| | Date. 1902. | Period. | Disease. |
|----------------|----------------|---------|---------------|
| Holbeton | Jan. 1 | 4 weeks | Diphtheria |
| Yealmpton | April 10 | 2 „ | Measles |
| Turnchapel— | | | |
| Infants | July 14 | 3 „ | Measles |
| Seniors | „ 21 | 2 „ | Measles |
| Cornwood— | | | |
| Lutton Infants | Nov. 20 | 6 „ | Scarlet Fever |

TABLE I.—FOR WHOLE DISTRICT.

| YEAR. | Population estimated to Middle of each Year. | BIRTHS. | | DEATHS UNDER ONE YEAR OF AGE. | | DEATHS AT ALL AGES, TOTAL. | | Deaths in Public Institutions. | Deaths of Non-residents registered in District. | Deaths of Residents registered beyond District. | DEATHS AT ALL AGES NETT. | |
|------------------------------|--|---------|-------|-------------------------------|---------------------------------|----------------------------|-------|--------------------------------|---|---|--------------------------|-------|
| | | Number. | Rate. | Number. | Rate per 1000 births registered | Number. | Rate. | | | | Number. | Rate. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 1892 | 21904 | 575 | 26·25 | 66 | 114·7 | 376 | 17·16 | 19 | 8 | .. | 368 | 16·80 |
| 1893 | 22028 | 607 | 27·55 | 66 | 108·7 | 389 | 17·65 | 27 | 17 | .. | 372 | 16·88 |
| 1894 | 22297 | 554 | 24·84 | 64 | 115·5 | 360 | 16·14 | 20 | 7 | .. | 353 | 15·83 |
| 1895 | 22443 | 623 | 27·75 | 60 | 96·3 | 378 | 16·84 | 29 | 12 | .. | 366 | 16·30 |
| 1896 | 23000 | 615 | 26·73 | 71 | 115·4 | 336 | 14·60 | 23 | 4 | .. | 332 | 14·43 |
| 1897 | 22090 | 616 | 27·88 | 95 | 154·2 | 337 | 15·25 | 14 | 2 | .. | 335 | 15·16 |
| 1898 | 22850 | 607 | 26·56 | 101 | 166·39 | 362 | 15·84 | 12 | 2 | .. | 360 | 15·75 |
| 1899 | 19070 | 456 | 23·91 | 61 | 133·77 | 323 | 16·94 | 15 | 7 | 2 | 318 | 16·67 |
| 1900 | 19262 | 455 | 23·62 | 47 | 103·29 | 295 | 15·31 | 19 | 4 | 0 | 291 | 15·10 |
| 1901 | 19780 | 471 | 23·81 | 40 | 84·92 | 248 | 12·53 | 11 | 1 | 1 | 248 | 12·53 |
| Averages for years 1892-1902 | 21472·4 | 557·9 | 25·98 | 67·1 | 120·2 | 340·4 | 15·85 | 18·9 | 6·4 | ·3 | 334·3 | 15·56 |
| 1902 | 20010 | 435 | 21·73 | 40 | 91·95 | 235 | 11·74 | 8 | 3 | 1 | 233 | 11·64 |

* Rates in Columns 4, 8, and 13, calculated per 1,000 of estimated population.

NOTE.—The details included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number 11 in Column 2.

† By the term "Non-residents" is meant persons brought into the district on account of illness, and dying in public institutions there. ‡ By the term "Resident" is meant persons who have been taken out of the district on account of illness, and have died in public institutions elsewhere.

TABLE II.

| Year. | Whole District. | | | | North or Plympton Sub-District. | | | | South or Yealampton Sub-District. | | | |
|--------------------------------|--|--------------------|---------------------|----------------------|--|--------------------|---------------------|----------------------|--|--------------------|---------------------|----------------------|
| | Population estimated to middle of each year. | Births registered. | Deaths at all ages. | Deaths under 1 year. | Population estimated to middle of each year. | Births registered. | Deaths at all ages. | Deaths under 1 year. | Population estimated to middle of each year. | Births registered. | Deaths at all ages. | Deaths under 1 year. |
| 1892 | 21940 | 575 | 368 | 66 | 13710 | 355 | 235 | 47 | 8194 | 220 | 133 | 19 |
| 1893 | 22028 | 607 | 372 | 66 | 13858 | 384 | 231 | 41 | 8170 | 223 | 141 | 25 |
| 1894 | 22297 | 554 | 353 | 64 | 14152 | 364 | 226 | 42 | 8145 | 190 | 127 | 22 |
| 1895 | 22443 | 623 | 366 | 60 | 14323 | 425 | 241 | 42 | 8120 | 198 | 125 | 18 |
| 1896 | 23000 | 615 | 332 | 71 | 14900 | 420 | 239 | 55 | 8100 | 195 | 93 | 16 |
| 1897 | 22090 | 616 | 335 | 95 | 14014 | 425 | 211 | 67 | 8076 | 191 | 124 | 28 |
| 1898 | 22850 | 607 | 360 | 101 | 14800 | 407 | 236 | 70 | 8050 | 200 | 124 | 31 |
| 1899 | 19070 | 456 | 318 | 61 | 11043 | 278 | 181 | 33 | 8027 | 178 | 137 | 28 |
| 1900 | 19262 | 455 | 291 | 47 | 11259 | 261 | 183 | 28 | 8003 | 194 | 108 | 19 |
| 1901 | 19780 | 471 | 248 | 40 | 11800 | 293 | 157 | 27 | 7980 | 178 | 91 | 13 |
| Average for Years 1892 to 1901 | 21472.4 | 557.9 | 334.3 | 67.1 | 13385.9 | 361.2 | 214.0 | 45.2 | 8086.5 | 196.7 | 120.3 | 21.9 |
| 1902 | 20010 | 435 | 233 | 40 | 11930 | 268 | 153 | 30 | 8080 | 167 | 80 | 10 |

NOTES.—(a) Deaths of residents occurring beyond the district are included in sub-columns (c) of this table, and those of non-residents registered in the district excluded.

(b) Deaths of residents occurring in public institutions are allotted to the respective localities, according to addresses of the deceased.

TABLE III.
Cases of Infectious Diseases Notified during the Year 1902.

| Notifiable Diseases. | Cases Notified in whole District. | | | | | | | Total cases notified in each Locality. | | No. of cases removed to Hospital from each locality. | |
|----------------------|-----------------------------------|----------------|---------|----------|-----------|----------|----------------|--|----------------------|--|----------------------|
| | At all ages. | At Ages—Years. | | | | | | | | | |
| | | Under 1 | 1 to 5. | 5 to 15. | 15 to 25. | 25 to 65 | 65 and upwards | Plympton or North. | Yealmp-ton or South. | Plympton or North. | Yealmp-ton or South. |
| Small-pox ... | 0 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Cholera ... | 0 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Diphtheria ... | 22 | ... | 8 | 9 | 3 | 2 | ... | 14 | 8 | 1 | ... |
| Membranous Croup | 1 | ... | ... | 1 | ... | ... | ... | 1 | ... | ... | ... |
| Erysipelas ... | 17 | ... | 1 | 1 | 1 | 13 | 1 | 3 | 14 | ... | ... |
| Scarlet Fever ... | 45 | ... | 8 | 27 | 8 | 2 | ... | 39 | 6 | 3 | ... |
| Typhus Fever ... | 0 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Enteric Fever ... | 4 | ... | ... | ... | 2 | 2 | ... | ... | 4 | ... | 1 |
| Relapsing Fever ... | 0 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Continued Fever ... | 0 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Puerperal Fever ... | 1 | ... | ... | ... | ... | 1 | ... | 1 | ... | ... | ... |
| Plague ... | 0 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| TOTALS ... | 90 | ... | 17 | 38 | 14 | 20 | 1 | 58 | 32 | 4 | 1 |

Isolation Hospitals used—Plymouth Borough Hospital and Devonport Borough Hospital—by arrangement with the respective Authorities.

TABLE IV.

Causes of, and Ages at, Death during Year 1902, excluding deaths of non-residents.

| CAUSES OF DEATH. | DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES. | | | | | | | Deaths in Sub-Districts (at all ages). | | Deaths in Public Institutions. |
|-----------------------------------|---|---------|----------------|-----------------|------------------|------------------|-----------------|--|---------------------|--------------------------------|
| | All Ages | Under 1 | 1 and under 5. | 5 and under 15. | 15 and under 25. | 25 and under 65. | 65 and upwards. | North or Plympton. | South or Yealmpton. | |
| | | | | | | | | | | |
| Small-Pox ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... |
| Measles ... | 2 | 1 | ... | ... | ... | ... | ... | ... | ... | ... |
| Scarlet Fever ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Whooping Cough ... | 4 | 4 | ... | ... | ... | ... | ... | ... | ... | ... |
| Diphtheria & membranous croup ... | 6 | ... | 3 | 3 | ... | ... | ... | 3 | 3 | ... |
| Croup ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Typhus ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Fever } Enteric ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other continued ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Epidemic influenza ... | 4 | ... | ... | ... | 1 | 2 | 1 | 4 | ... | ... |
| Cholera ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Plague ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Diarrhoea ... | 3 | 2 | 1 | ... | ... | ... | ... | 2 | 1 | ... |
| Enteritis ... | 2 | 2 | ... | ... | ... | ... | ... | 1 | 1 | ... |
| Puerperal Fever ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Erysipelas ... | 1 | ... | ... | ... | ... | ... | ... | ... | 1 | ... |
| Other septic diseases ... | 4 | 1 | ... | ... | 1 | 1 | 1 | 4 | ... | ... |

TABLE V.
Shewing the number of Deaths from principal Zymotic Diseases in the District from 1893 up to and including 1903.

| DISEASE. | Average for 1893-90. | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902. | Annual Rate per 1000, 1902. | Annual Rate for England & Wales, 1902 |
|---|----------------------------|------|------|------|------|------|------|------|------|------|-------|-----------------------------------|---|
| Small Pox .. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Measles .. | 5.2 | 5 | 0 | 8 | 27 | 3 | 13 | 5 | 0 | 3 | 2 | .099 | |
| Scarlet Fever .. | 4.7 | 13 | 1 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| Diphtheria .. | 2.6 | 0 | 3 | 3 | 6 | 1 | 2 | 1 | 5 | 2 | 6 | .29 | |
| Whooping Cough .. | 8.1 | 5 | 19 | 3 | 1 | 5 | 17 | 4 | 1 | 0 | 4 | .19 | |
| Enteric or Typhoid Fever .. | 4.5 | 1 | 1 | 5 | 1 | 0 | 3 | 3* | 1 | 1† | 0 | 0 | |
| Diarrhœa .. | 7.4 | 17 | 7 | 7 | 12 | 13 | 26 | 17 | 11 | 5 | 3 | .14 | |
| Other Zymotic Diseases, e.g.: Erysipelas, Croup, and Puerperal Fever .. | not recorded | 5 | 0 | 1 | 3 | 3 | 0 | 2 | 0 | 0 | 1 | .049 | |
| Total .. | 32.5 | 46 | 31 | 29 | 51 | 25 | 62 | 32 | 18 | 11 | 16 | .79 | 1.55 |

* Of these, two occurred in the Plymouth Borough Hospital.

† This occurred in the Plymouth Borough Hospital.

TABLE VI.

Quarterly Distribution of Cases of Infectious Diseases with the Deaths therefrom.

NOTIFIABLE.—Cases and Deaths therefrom.

| Disease. | 1st Quarter. | 2nd Quarter. | 3rd Quarter. | 4th Quarter. | Whole Year. | |
|------------------------------------|-----------------|-----------------|-----------------|-----------------|-------------|---------|
| | | | | | Cases. | Deaths. |
| Small Pox | .. | .. | .. | .. | .. | .. |
| Cholera | .. | .. | .. | .. | .. | .. |
| Diphtheria and Membranous Croup | 16 5 | 1 | 2 | 4 1 | 23 | 6 |
| Erysipelas | 8 1 | 4 | 2 | 3 | 17 | 1 |
| Scarlet Fever .. | 14 | 2 | 7 | 22 | 45 | .. |
| Typhus Fever .. | .. | .. | .. | .. | .. | .. |
| Enteric Fever .. | .. | .. | 3 | 1 | 4 | .. |
| Relapsing Fever .. | .. | .. | .. | .. | .. | .. |
| Puerperal Fever .. | .. | 1 | .. | .. | 1 | .. |
| Total | 38 6 | 8 | 14 | 30 1 | 90 | 7 |

NON-NOTIFIABLE.—Deaths only.

| | | | | | | |
|-------------------|----|----|----|----|----|----|
| Measles | .. | .. | 2 | .. | .. | 2 |
| Whooping Cough .. | .. | 3 | 1 | .. | .. | 4 |
| Diarrhœa | .. | 1 | 2 | .. | .. | 3 |
| Influenza | 1 | 2 | .. | 1 | .. | 4 |
| Phthisis | 1 | 5 | 2 | 2 | .. | 10 |
| Total | 2 | 11 | 7 | 3 | .. | 23 |

North Sub-District.

TABLE VII.
INFECTIOUS DISEASES NOTIFICATION ACTS.

Table shewing the Parochial distribution of cases notified under the above Act, and the Deaths from Notified Diseases.
The total number printed in large figures, the deaths in small figures.

| PARISH. | Small Pox. | Cholera. | Diphtheria & Mem. Group. | Erysipelas | Scarlet Fever. | Typhus Fever. | Enteric or Typhoid Fever. | Relapsing Fever. | Continued Fever. | Puerperal Fever. | Total Notified. | Total Deaths. |
|------------------------|------------|----------|--------------------------|------------|----------------|---------------|---------------------------|------------------|------------------|------------------|-----------------|---------------|
| Compton .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Bickleigh .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Cornwood .. | .. | .. | .. | .. | 11 | .. | .. | .. | .. | .. | 11 | .. |
| Egg Buckland .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Harford .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Weston Peverell .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Plympton St. Mary .. | .. | .. | 3 | .. | 11 | .. | .. | .. | .. | .. | 14 | .. |
| Plympton St. Maurice.. | .. | .. | .. | .. | 5 | .. | .. | .. | .. | .. | 5 | .. |
| St. Budeaux .. | .. | .. | 6 2 | 1 | 10 | .. | .. | .. | .. | .. | 17 | 2 |
| Shaugh .. | .. | .. | 6 1 | 2 | 2 | .. | .. | .. | .. | .. | 10 | 1 |
| Tamerton Folliott .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | .. |
| Total North .. | .. | .. | 15 3 | 3 | 39 | .. | .. | .. | .. | 1 | 58 | 3 |

TABLE VIII.
INFECTIOUS DISEASES NOTIFICATION ACT.

Table shewing the Parochial Distribution of cases notified under the above Act, and the deaths from the Notified Diseases.
The total number printed in large figures, the deaths in small figures.

| PARISH. | Small Pox. | Cholera. | Diphth'ia and Mem- Group. | Erysip'las | Scarlet Fever | Typhus Fever | Enteric or Typhoid Fever | Relapsing Fever | Continued Fever | Puerperal Fever | Total Notified | Total Deaths |
|--------------------------------|---------------|----------|---------------------------------|------------|------------------|-----------------|--------------------------------|--------------------|--------------------|--------------------|-------------------|-----------------|
| Brixton .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 | .. |
| Ermington .. | .. | .. | 1 | .. | 2 | .. | .. | .. | .. | .. | 3 | .. |
| Holbeton .. | .. | .. | 5 3 | 1 | .. | .. | .. | .. | .. | .. | 6 | 3 |
| Newton Ferrers .. | .. | .. | 1 | 1 | .. | .. | .. | .. | .. | .. | 2 | .. |
| Plymstock .. | .. | .. | .. | 5 | 2 | .. | 2 | .. | .. | .. | 9 | .. |
| Revelstoke .. | .. | .. | 1 | 3 1 | 1 | .. | .. | .. | .. | .. | 5 | 1 |
| Wembury .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Yealmspton .. | .. | .. | .. | 4 | .. | .. | 2 | .. | .. | .. | 6 | .. |
| Total South .. | .. | .. | 8 3 | 14 1 | 6 | .. | 4 | .. | .. | .. | 32 | 4 |
| Total North .. | .. | .. | 15 3 | 3 | 39 | .. | .. | .. | .. | 1 | 58 | 3 |
| Total Whole District .. | .. | .. | 23 6 | 17 1 | 45 | .. | 4 | .. | .. | 1 | 90 | 7 |

TABLE IX.

Table showing Parochial Distribution of Deaths, from Zymotic Diseases, Phthisis, and Cancer.

| NORTH SUB-DISTRICT. | Small Pox. | Cholera | Diph- theria and Mem- brano's Group. | Ery- sipelas | Scarlet Fever. | Typhus Fever. | Enteric or Ty- phoid Fever. | Relap- sing Fever. | Puer- peral Fever. | Measles | Diarr- hoea. | Whoop- ing Cough. | TOTAL Zy- motic Dis- eases. | Phth- isis. | Cancer. |
|-------------------------|---------------|---------|---|-----------------|-------------------|------------------|--------------------------------------|--------------------------|--------------------------|---------|-----------------|-------------------------|---|----------------|---------|
| Bickleigh .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | I | 1 | .. | 2 |
| Compton .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Cornwood .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | I | .. | 1 | .. | I |
| Egg Buckland .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | I | I | 2 | I | I |
| Harford .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Weston Peverell .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Plympton St. Mary .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | I | 1 | I | 4 |
| Workhouse .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Plympton St. Maurice .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | I | 1 | I | I |
| St. Budeaux .. | .. | .. | 2 | .. | .. | .. | .. | .. | .. | I | .. | .. | 3 | I | .. |
| Shaugh .. | .. | .. | I | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. |
| Tamerton Folliott .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. |
| TOTAL, NORTH .. | .. | .. | 3 | .. | .. | .. | .. | .. | .. | 1 | 2 | 4 | 10 | 6 | 9 |

TABLE X.

Table showing Parochial Distribution of Deaths from Zymotic Diseases, Phthisis, and Cancer—*Continued*.

| SOUTH SUB. DISTRICT. | Small Pox. | Cholera | Diph- theria & Mem- branous Group. | Ery- sipelas. | Typhus Fever. | Enteric or Typhoid Fever. | Re- lapsing Fever. | Puer- peral Fever. | Meas- les | Diarr- hoe. | Whoop- ing Cough. | Total Zy- motic Dis- eases. | Phthi- sis. | Cancer. |
|----------------------|---------------|---------|--|------------------|------------------|------------------------------------|--------------------------|--------------------------|--------------|----------------|-------------------------|---|----------------|---------|
| Brixton .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 3 |
| Ermington .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 |
| Holbeton .. | .. | .. | 3 | .. | .. | .. | .. | .. | .. | .. | .. | 3 | 1 | 2 |
| Newton Ferrers .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 |
| Plymstock .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | .. | 2 | 1 | 1 |
| Revelstoke .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | .. |
| Wembury .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Yealmington .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. |
| Total South .. | .. | .. | 3 | 1 | .. | .. | .. | .. | 1 | 1 | .. | 6 | 4 | 9 |
| Total North .. | .. | .. | 3 | .. | .. | .. | .. | .. | 1 | 2 | 4 | 10 | 6 | 9 |
| Whole District .. | .. | .. | 6 | 1 | .. | .. | .. | .. | 2 | 3 | 4 | 16 | 10 | 18 |

EPITOME OF THE MORE IMPORTANT WORK DONE
DURING THE YEAR.

1. The **Small Pox Hospital** has been erected.
2. A large number of **Dairies and Cowsheds** have been inspected. Many improvements have been effected, and the register almost completed.
3. The whole of the **Bakehouses and Factories** have been inspected.
4. In **Yealmpton** the public water scheme has been completed and opened.
5. In **Ermington** a new main sewer and tank have been constructed.
6. In **Holbeton** great improvements have been made in the drainage.
7. In **Plymstock** 65 more houses have been supplied with water from the public mains.
8. In **Plympton St. Mary** much new drainage work has been done.
9. In **Tamerton** a long length of new main sewer has been constructed.
10. In **Newton Ferrers** marked improvement has been made in the Water supply of Torre Village.
11. The **Bye-Laws Committee** has given much attention to the revision of the Bye-Laws.
12. Considerable steps have been made towards the furtherance of **Crown Hill and Honicknowle** drainage scheme.

Methods of Dealing with Infectious Disease. The Infectious Diseases Notification Act and the Infectious Diseases Prevention Act are in force in the district, and so I not only obtain knowledge of every case of important infectious disease, but am able to deal with it promptly. On receipt of a notification I immediately send printed instructions (applicable to the notified disease) to the householder, and this is followed by a visit from the Sanitary Inspector, who sees that disinfectants are used, and that the patient is isolated as well as the circumstances of the house will permit. In cases where he is doubtful he communicates with me, and I then visit the house, and where isolation is impossible I endeavour to obtain the removal of the patient to the Plymouth Borough Isolation Hospital. The Rural District Council has an arrangement with the Town Council of Plymouth for that purpose. At the conclusion of the case the house, bedding, etc., are carefully disinfected.

Small Pox. For dealing with cases of this disease I am very glad to be able to report that the Council now possess a good hospital. It is a well-constructed building of wood and iron, and is situated in an isolated situation on the road between Lee Mill Bridge and Sparkwell. It has four separate pavilions with connecting passages, and there are two large wards for four beds each, and two small observation wards with two beds each, in addition there is an administration block with rooms for the doctor, the matron and the nurses. There is also a detached building appropriately divided as a mortuary, an ambulance shed, a fumigating chamber and a washhouse.

There is a good well in the adjoining land from which properly distributed cold and hot water supplies are carried throughout the building. Each ward is provided with its own bath room and closet.

Whilst glad that the Council have at last succeeded in obtaining this small pox hospital, I am also very sorry that such

hospitals have been rendered necessary throughout England by the neglect of vaccination and re-vaccination. Early in the year, in consequence of a small pox scare large numbers of people were re-vaccinated, but although many were so protected yet an enormous majority of the adult population of England is still careless about or refuse re-vaccination, and this in spite of the strongest possible evidence of its protective power. It has been clearly shewn that primary child-vaccination is almost absolutely protective to children, and that this protection gradually becomes less as the child approaches adult life. Again, no fact in medical history is more clearly established than that re-vaccination affords greater protection against small pox than any other human means. This being incontestable it is surely reasonable to insist that every individual should be re-vaccinated, and for this the most convenient age would be from 12 to 14 whilst the child is either attending or about to leave school. If re-vaccination thus became the rule instead of the exception, and were thus done regularly and continuously instead of only during "scare" times, I have no doubt that small pox would soon become as extinct in England as Typhus Fever or Cholera, and the community would thus be saved not only from the dread of having to face periodical outbreaks of that filthy disease, but would also be saved the enormous expense which a small pox hospital entails.

There is a movement in favour of handing the administration of public vaccination over to the sanitary authority, rather than leave it, as at present, in the hands of the Poor Law Guardians. This is an important and wise proposal, for it would tend to enable prompter measures to be taken when small pox appears. With regard to yourselves it may appear a trivial suggestion, seeing that you as a Rural District Council are for all practical purposes both Guardians and Sanitary Authority, but the question is of great importance in large towns where distinct and separate bodies of men are elected for the two authorities.

Personally I would go much further than this, and would have the administration of the vaccination laws enforced equally and fairly throughout the whole length and breadth of the land by some powerful central authority, and not allow it as at present to be subject to the passing wisdom or prejudice of a particular locality. It is very unfair that one particular part of England which has taken care to protect itself by vaccination and re-vaccination should, by the carelessness and ignorance of another part, have to bear the great cost which an outbreak of small pox inevitably brings. The fact is that the supervision of public health is important enough to warrant the creation of a state department with officials devoted entirely to the work belonging to it.

Tuberculosis. During the year it has been decided to establish a sanatorium at Didworthy for the treatment of this disease, and an application was made to the District Council by the Committee for help in maintaining the same. I am glad to think that the Council have decided to pay for the maintenance of at least one patient there for the suggested period of four months. It is gratifying to feel that the Council is thus intending to do something towards this important experiment, for even if the sanatorium treatment will do only a part of what its enthusiastic supporters claim, it will be of enormous advantage to the community at large. The tremendous havoc which tuberculosis makes amongst the young adult population of our country justifies any reasonable effort being made to lessen it. The one great lesson which I hope the sanatorium will show is the proof that phthisis is a curable disease. As sanitarians, however, we must not be content with curing tuberculosis, but we must endeavour to prevent it, and I am convinced that the greatest means of prevention lie almost neglected as it were at our very doors—I mean fresh air and sunlight—the two great supporters of life and health which people generally take trouble to keep out of their houses.

It is well to remember that during the past few years there has been a steady fall in the death rate from Phthisis. This is undoubtedly due to and coincident with the enforcement of general sanitary measures, and I feel it is wise to issue a word of warning with regard to the great expectations which are at present being raised as to sanatoria. It must not be forgotten that sanatoria for phthisis are to be mainly regarded as hospitals for dealing with the results of tuberculosis and for curing or arresting disease, and should therefore hardly be classed amongst such primary and great preventive measures as subsoil drainage, well-built houses, provision of sunlight and air, prevention of overcrowding, and the rendering of unhealthy occupations less dangerous to the workers; and, therefore, although there can be no question as to the usefulness of sanatoria in the treatment of Phthisis, yet it may be safely said that a given sum of money used in the promotion of the above list of "primary preventive measures" would do "more towards the permanent reduction of the death rate from Phthisis than many times the same sum expended in the building and support of Sanatoria."

Scavenging. A revised form of rules has been adopted, by which I think the scavenging will be more satisfactorily done in the future. The chief complaints have arisen because of the difficulty of deciding between domestic and trade (*i.e.* shop) refuse. It is now I think definitely understood that the Contractors are not supposed to remove the latter. A public collection of house refuse is made in

| | | |
|-------------------|---|--------------------------|
| Plympton St. Mary | Underwood Ridgeway Colebrook Plympton St. Maurice | } once a week. |
| Plymstock. | Oreston Pomphlett Billacombe Hooe, and Turnchapel | } three times a week. |

| | | |
|-------------|-----------------|-----------------------|
| St. Budeaux | Crown Hill | } three times a week. |
| | and Honicknowle | |
| Compton | - | once a week. |

And an agreement has been made by which the Council has undertaken the removal of refuse for the temporary barracks at Crownhill.

Offensive Trades. There is a factory at Batten (Plymstock), for the manufacture of manure from fish offal. Although there are occasional complaints as to the offensive smells arising therefrom, I have not, on my surprise visits, detected anything to warrant legal action.

During the year, after several ineffectual surprise visits, I was able to obtain evidence that a building in Plympton St. Maurice was being used as a slaughter-house without being licensed for such, and as the owner had previously received several warnings he was proceeded against and a conviction obtained.

In the month of August an attempt was made to establish a Knacker's Yard at Elburton, but this was prevented by remonstrance and advice.

Bye-Laws. The Council possess powers to enforce Bye-Laws for the following :—

1. New Buildings.
2. Alterations of Buildings.
3. Slaughter-Houses.
4. Prevention of Nuisances.
5. New Streets and Buildings.

The experience of the past few years has proved that many of the Bye-Laws regarding new buildings are unnecessarily severe, and apparently prohibit the erection of cottages. These have now been carefully revised, and will soon be submitted to the Council, who will, I hope, give them careful attention, for their effect, if sanctioned by the Local Government Board, will be important and far-reaching.

When it is remembered that scarcely a fortnight passes without plans for new buildings being submitted to the Works' Committee, and that during the year that Committee examined and passed plans for 74 new houses, one need hardly dilate on the importance of having bye-laws which are not only based on the principles of modern sanitation, but are also reasonably workable, and which can at the same time be easily enforced.

FACTORY AND WORKSHOP ACT, 1901.

Bakehouses. During the year I have inspected, by surprise visits, 31 bakehouses. I am glad to report that the majority are in good condition, and that in none have I found any serious sanitary defects. I have therefore entered the whole in my register. In 16 I found various defects which I requested the occupiers to remedy, and should my requests not have been complied with at my next inspection, I shall, of course, take steps to enforce them. In 3 I found bad floors, and in 2 there were sinks within the bakehouses, whilst in 3 the whitewashing had not been properly or regularly done. In several I found the closets used by the occupiers were in need of more regular flushing. The ventilation, lighting, and means of escape from fire were generally sufficiently provided for by the doors and windows.

In 13 the bakehouses are detached buildings, and in the remainder, although the bakehouse is under the same roof as the dwelling-house, yet it is in all cases cut off by doors or passages from any living room.

In several cases the bakehouse is practically part of the open shop from which the bread is sold.

In no case did I find any direct communication between a bakehouse and a closet, in fact the closet is more frequently quite a detached and separate building.

Generally speaking, the occupiers welcomed my inspections.

Factories. One of the factories inspected had improper closet accommodation, which the owner promised to improve. All the factories are so built that means of escape from fire are good and sufficient,

Homeworkers. I have not yet received the names of any homeworkers, and I would suggest that the Council should advertise in the local papers, so that such occupiers of factories, workshops, or any place from which work is given out, to whom this act applies, should receive official notice of their obligation to forward names and addresses of any outworkers employed by them to the District Council.

Dairies, Cowsheds, and Milkshops Orders. The amount of work done under these orders has been very considerable, seeing that 171 different applications have now been received. The importance of this work cannot well be over - estimated, and I am glad, therefore, to be able to congratulate the Council on the fact that many good results have already been attained. Mr. Horton has very carefully and creditably carried out his instructions in the matter, and has shewn great interest in the work, and he is able (*vide* his report) to record very encouraging results from his inspections. Generally speaking, he has found that the larger the dairy the easier it is to get the regulations complied with.

Rainfall at Hooe, Plymstock, as registered by J. LITTLE.
Esq., of Thorncott.

The total rainfall for the year was 34·68 inches. November was the wettest month, with a rainfall of 6·18 inches, whilst February was the driest, with 1·62 ; on the other hand May had

the greatest number of days on which rain fell, and July the least. The monthly register was as follows:--

| Month. | Number of Dry Days. | | Number of Wet Days. | | Rainfall for the Month in inches. | |
|-----------|------------------------|-----|------------------------|-----|--------------------------------------|-------|
| January | .. | 19 | .. | 12 | .. | 1'77 |
| February | .. | 18 | .. | 10 | .. | 1.62 |
| March | .. | 13 | .. | 18 | .. | 2'44 |
| April | .. | 18 | .. | 12 | .. | 2'07 |
| May | .. | 10 | .. | 21 | .. | 2'25 |
| June | .. | 12 | .. | 18 | .. | 3'89 |
| July | .. | 20 | .. | 11 | .. | 2'45 |
| August | .. | 13 | .. | 18 | .. | 2'30 |
| September | .. | 16 | .. | 14 | .. | 2'81 |
| October | .. | 13 | .. | 18 | .. | 3.31 |
| November | .. | 13 | .. | 17 | .. | 6'18 |
| December | .. | 15 | .. | 16 | .. | 3'58 |
| Totals | .. | 180 | .. | 185 | .. | 34'68 |

July 25th, with 1'13 inches, and November 27th, with 1'02, were the wettest days in the year, and the only days on which 1 inch or more was registered. The longest spells of dry weather were from January 10th to January 20th, February 10th to February 19th, March 2nd to March 10th, and November 12th to November 20th, in each case both days to be included.

The longest spells of wet weather were from March 23rd to March 29th, April 30th to May 7th, May 12th to May 19th, November 4th to November 11th, and December 25th to December 31st.

NOTES ON THE EXISTING SANITARY CONDITIONS OF THE VARIOUS PARTS OF THE DISTRICT.

TO BE READ IN CONJUNCTION WITH THE REPORT OF
THE SANITARY INSPECTOR.

BICKLEIGH. The WATER SUPPLY of the villages of Bickleigh and Roborough is very good, as it is derived from the Plymouth mains which pass through them.

DRAINAGE. Roborough is badly drained; the sewers empty into cess-pits which are very near the houses. A good system of drainage could easily be constructed, and an admirable site for irrigation could be chosen, but the landlords are not willing to grant the land.

Bickleigh. There are no public sewers here, nor are any desirable, as the sewage from each house is disposed of satisfactorily.

COMPTON. The WATER SUPPLY is very good, being from the Plymouth mains. The DRAINAGE is at present bad. The existing sewers are good, but they empty into cess-pits, from which the effluent gives rise to recurring nuisances which have to be dealt with by the Sanitary Inspector. The land available for irrigation is insufficient in area. I hope the present year will see the intended drainage scheme completed—*vide* "Egg Buckland."

EGG BUCKLAND. This village is well sewered, but has no outfall beyond a badly constructed cess-pit, situated too near the houses. In my last year's report I stated my satisfaction that the drainage scheme arranged for the two villages of Compton and Egg Buckland was without an opponent, and I therefore hoped that the scheme would have been completed by this

time. Instead of that I regret to have to state that it has not even been begun. During the year tenders were asked for the work, and one was accepted; the would-be contractor however failed to comply with the preliminary requirements, and fresh tenders had to be solicited. Ultimately one was accepted, and I understand the work will soon be begun. The delay which has taken place, is not only very serious, but has added considerably to the cost of the scheme, and is one which is almost beyond satisfactory explanation. The history of the scheme is instructive, but also irritating, as the following brief *resumé* of the chief events, with approximate dates, will prove :—

1895. Drainage Scheme prepared by Mr. Bellamy, C.E.
Prolonged negotiations to obtain land for irrigation.

1897. This Scheme abandoned because of Plymouth Extension Order.

1898. Combined Scheme for Egg Buckland and Compton, prepared by Mr. R. H. Worth, C.E., and submitted to the Local Government Board.

November. Plans returned by Local Government Board for acquisition of land for irrigation.

1899. Revised scheme and estimates prepared.

1900. *Jan. 17.* Local enquiry held by Local Government Board Inspector.

April 6. Local Government Board refused permission to revised scheme, but consented to that of 1898.

Aug. 24. Board of Trade raised objection to outfall.

Oct. 5. War Office refused permission to tanks.

1901. Negotiations with opponents.

1902. *March.* All opposition removed.

Mar. to Dec. One tender accepted, then abandoned.

Second tender accepted, and work waiting to be begun.

EGG BUCKLAND. The public **WATER SUPPLY** is very good. The District Council, by consent of the Local Government Board, have an arrangement with the Plymouth Town Council, by which the village is supplied with water from the Plymouth mains. During the year several houses have been thus supplied, and the total number now connected with the mains is 43, whilst 8 are supplied by meter. There are still a few cottages which obtain water from private wells of doubtful character. The sanitary inspector is gradually succeeding in persuading the owners of these cottages to take in the water from the public mains.

CORNWOOD. **WATER SUPPLY** very good from public works. It is taken from deep springs situated on the fringe of Dartmoor, and after being collected in a reservoir is distributed throughout the village by stand-pipes. In a few cases householders have taken it into their houses.

The villages of Corntown and Puttypool also obtain water from this source.

DRAINAGE. The village is well sewered, the drain discharging into a cess-pit from whence the effluent is efficiently irrigated over grass land.

LUTTON. **WATER SUPPLY** very good from public works. The water rises from uncultivated upland sources, and is thence piped to a reservoir and distributed throughout the village by stand-pipes.

DRAINAGE. The village is sewered, and the sewage is piped to two cess-pits from which it is irrigated over grass lands.

A few cess-pit closets still remain, and some cottages which have plenty of garden ground have earth closets.

BRIXTON. The public WATER SUPPLY is derived from a moderately deep well, and reaches the villagers through two public pumps. Whilst the quantity of water seems sufficient for ordinary domestic uses, yet it will, doubtless, prove too little for any effective flushing of the new sewers which are intended to be laid during the coming year.

As the well is situated in a position which renders the water liable to pollution, I cannot but repeat my previous advice, that a new supply is desirable.

DRAINAGE. This is bad. The sewers discharge into three cess-pits, from which it is irrigated over grass lands. I am glad, however, to state that negotiations, which are in hand, will in all probability enable the Council to proceed at once with the proposed new system.

Where the closets are not connected with the drains they are on the bucket or cess-pit system.

TORRE, COOMBE, & HORNICOMBE. These hamlets are provided with a good and ample supply of water, which is distributed through public taps.

In neither of them is there any sewage system, and as all the houses have gardens attached, I don't think one is desirable.

SPRIDDLESTONE. WATER SUPPLY is from a public pump fixed over a shallow well. The yield is sufficient, and I have not yet found any suspicion of impurity.

There are no sewers, nor are any necessary.

ERMINGTON. WATER SUPPLY. The public supply is from a well which yields plenty of water, which is piped to a public tap. There are several other private wells in the village. The public well is situated so near to the grave-yard that I have at intervals analysed the water, but have found no

reason as yet to doubt its purity. In spite of this, however, I think efforts should be made to provide a public supply, sufficient in quantity to distribute throughout the village, especially as many of the houses are now being provided with water closets. Some of the private wells are perilously near old and bad drains, and I am therefore glad that these old drains will soon be things of the past, as the new drainage scheme will convey the sewage safely away from many of the houses.

DRAINAGE. The village is for drainage purposes divided into two parts, an eastern and a western. For the western division a new system of drains has just been constructed, by this the sewage will be conveyed to a tank situated at a considerable distance from and below the village. The effluent from this tank will be irrigated through the adjoining land, which in its formation (gravel and sand) seems naturally adapted for that purpose.

For the eastern division the present sewers will continue to discharge the sewage into the existing cess-pits, from which the effluent is irrigated over grass-land.

NEWTON FERRERS. WATER SUPPLY. The quality is doubtful, as it is derived from shallow wells situated in very undesirable localities. The water is piped to the village and supplied through two stand pipes; but often during a moderately dry summer these stand pipes are eloquent though silent witnesses to the utter insufficiency of the supply. During the last few years scheme after scheme has been proposed, only, however, to be abandoned because of insufficient yield, local opposition, or excessive cost. The one scheme which had the merit of providing a sufficient quantity of water was that for taking a supply from the springs near Puslinch Bridge, and although the cost would be a tremendously heavy one for the parish to bear, yet in the absence of any other effective scheme. I cannot forbear advising the Council to again consider it,

One great difficulty appears to arise from the fact that Newton Ferrers lies on the side of a steep hill, and consequently the houses lie at widely varying levels, a good number being just above high water mark, whilst others are at considerable heights; and it appears impossible to devise a scheme by which sufficient water can be obtained from one source at a reasonable cost and without expensive pumping apparatus. During the past year a promising proposal was made, by which it was hoped a supply might be obtained from a source in Revelstoke, but this has not been proceeded with, chiefly because sufficient water could not be guaranteed for the whole village. Realising the great difficulties there are in carrying through any one comprehensive scheme, I suggest the Council should consider the question of providing water for this village from two or more sources, and so have a high level and a low level service, each provided with its own separate and independent reservoirs and distributing mains. If this proved feasible it might be possible to obtain, as one source, the water which is at present going to waste on the Revelstoke side of the river Yealm.

DRAINAGE. The village is sewered, but the sewers are very insufficiently flushed, especially during the summer, when they want it most. The outfall is into the Newton Creek, a part of the River Yealm.

There is room for much improvement here, but I feel it is premature to suggest anything until the water question is solved.

TORRE VILLAGE. WATER SUPPLY. Quantity and quality good, and distributed through the village by stand-pipes.

DRAINAGE. There is no system of sewers. The closets are on the dry earth and cess-pit system.

REVELSTOKE. The **WATER SUPPLY** is good in quality and quantity. It is distributed by iron mains to stand-pipes.

DRAINAGE. The village is sewered, but several closets are on the earth, bucket, and cess-pit system, and therefore not connected with the drain. Some of the houses are only just above high-water mark, and one of the sewers being also in this position, it is therefore inefficiently flushed. The sewage is discharged into the creek—a part of the River Yealm.

WEMBURY. The **WATER SUPPLY** is derived from three different sources, and I have no reason to doubt its quality or quantity. It reaches the villagers through public taps, which are placed within reasonable distance of the houses. A few householders have independent supplies.

DRAINAGE. The village is sewered, the sewers discharging into a cess-pit from which the effluent is irrigated over the adjoining land. As many of the houses have large gardens attached to them, they are provided with earth or cess-pit closets.

DOWNTHOMAS. **WATER SUPPLY.** There are two public pumps which draw water from two separate wells. Both wells are efficiently protected, and yield water sufficient in quantity and good in quality. The pumps are within easy distance of the houses.

DRAINAGE. There are no public sewers, the closets are all on the dry system, and the slop water is disposed of over the gardens—except from one small block of houses where it has been, without the sanction of the authority, sent into the storm water drains of the highway. Here it has formed a nuisance which the Council is endeavouring to have abated.

TAMERTON FOLLIOTT. **Tamerton.** The **WATER SUPPLY** is good and abundant, being derived from the Plymouth mains. In addition there are two public wells which, although they are situated in somewhat doubtful positions, yet yield water in which I have not been able to detect any impurity. There are also some private wells.

DRAINAGE. The village is sewered, and an important addition has been this year made to the sewers. The main sewer discharges into the Tamerton Creek.

Franklin Cottages. The **WATER SUPPLY** is good and abundant from the Plymouth mains.

DRAINAGE. The slop water is collected in a cess-pit, from which the effluent is irrigated over land. The closets are on the earth bucket system, and the houses all have good gardens attached.

WESTON PEVERELL (Weston Mill). The **WATER SUPPLY** is derived from a public well which yields a sufficient quantity of good water.

DRAINAGE. There is no complete system of public sewers. The cottages are few in number, and are chiefly provided with earth or cess-pit closets.

HARFORD. There is no public water supply as the houses all have good and independent supplies, either derived from upland surface moor streams or springs. The parish is also happy in having no drainage scheme, nor is there any necessity for one.

HOLBETON. WATER SUPPLY. The quality is good but quantity is insufficient. It is derived from springs situated at high level in grass land, and after collecting in a reservoir is distributed throughout the village by standpipes.

It is intended to augment the supply, and Mr. F. A. Clark is still engaged in watching the springs to see whether it will be useful to increase the size of the reservoir. The local landowner, F. Mildmay, Esq., is also making investigations with the same object. I hope soon to see some tangible result, for during a dry summer the present supply is certainly

insufficient, even when only used for domestic purposes, and it then leaves none for flushing the sewers.

DRAINAGE. The village is now very well sewered. During the past year not only has the Council done much work in this direction (*vide* Mr. Horton's report), but F. Mildmay, Esq., the chief landowner, has carried out enormous improvements in drainage matters. I cannot help expressing the wish that the landowners in other villages would so well fulfil their moral obligations to their tenants.

The sewage is efficiently and safely disposed of by surface irrigation, and the crops obtained from the land well repay the care which is given to the irrigation channels.

Now that the village is so well sewered, the necessity for improving the water supply is increased.

ST. BUDEAUX (Crown Hill and Honicknowle). The WATER SUPPLY is very good. It is derived from the Plymouth mains. For Honicknowle the District Council have guaranteed a certain annual payment to the Plymouth Town Council for that purpose. There are still a few isolated cottages which take water from private wells. These are being watched as some of them are in suspicious situations.

DRAINAGE. This is still bad in spite of the continuous attention of the Sanitary Inspector. Both villages are sewered "after a fashion," and discharge sewage into public cess-pits.

In Crown Hill and part of Honicknowle the effluent from these cess-pits, after flowing for a short distance over the land, reaches the stream flowing between the two villages. The effluent from the greater part of the sewage of Honicknowle is filtered through coke beds and with decided advantage. This effluent ultimately reaches the before-mentioned stream. This

stream has been the subject of much litigation, and the District Council has had to pay very heavily for being unable to prevent the sewage effluent polluting it. I use the words "being unable" advisedly, for the Council have made repeated efforts to practically deal with the whole of the sewage by means of a comprehensive drainage scheme, but have been persistently thwarted by the action of the powerful authority of Devonport. At last, however, there are signs that the opposition will soon be overcome, and that the present dangerous and intolerable position altered for one marked by safety and economy.

PLYMSTOCK. WATER SUPPLY. The public supply is very good in quality and quantity. It is derived from the same source as that of Plympton St. Mary, and the mains are distributed throughout the whole of the parish except the village of Staddiscombe.

During the year there have been several new house connections made, and on December 30th, the total number of houses connected with the mains was 379, an increase of 65 during the year, whilst six additional establishments were supplied through meters. This is very gratifying, and proves conclusively that the parishioners appreciate the luxury and convenience of a constant water supply.

I fear there are a few householders who manage to obtain water from their neighbours' taps, and so evade the payment of the water rent.

In Staddiscombe there are three public pumps placed in convenient positions and yielding a good supply of water.

Pomphlett, Oreston, Lower Hooe, and Turnchapel. DRAINAGE. These villages are all sewered, and discharge their sewage into the Cattewater. The majority of the houses

possess water closets, many of which are however insufficiently flushed.

As the outfalls at Lower Hooe are numerous and too near high water mark, a scheme has been prepared and received the sanction of the Local Government Board for the re-sewering of the village. At present this scheme is somewhat delayed by the action of the Duchy of Cornwall and the Admiralty.

Plymstock, Elburton, Billacombe, Higher Hooe, and Staddiscombe. In these villages there are no public sewers for reception of anything but slop water. The houses are supplied with earth closets, and as a rule they are kept in a wholesome condition. In Billacombe the scavenger removes the contents of the earth closets regularly, in the other villages the householders dispose of it on their gardens.

It is proposed to lay a public sewer in Plymstock, by which a recurring road side nuisance will be abated.

For an epitome of the work done in this parish during the year, please see the *Sanitary Inspector's Report*.

PLYMPTON ST. MARY and PLYMPTON ST. MAURICE. The public WATER SUPPLY is excellent, and is well distributed throughout Ridgway, Colebrook, Underwood, Plympton St. Maurice, and Hemerdon. It is derived from Bottle Hill on the borders of Dartmoor, being collected from adits driven far into the hillside. During the year a considerable amount of work has been done by which the yield of water has been increased.

Lee Mill and Smithaleigh. Here there is a good public supply taken from springs situated in pasture land. It is well distributed.

Venton. The west end of this village has a satisfactory supply of water from a public well and pump. The east end is supplied from a small spring, whence the water is piped to

a tank. The pipes through which the water is conveyed to the tanks are, however, land drain pipes, and therefore the water is subject to pollution during storms.

SPARKWELL. The public water supply is a satisfactory one. It is derived from a deep well, from which the water is conveyed to a reservoir and thence distributed to various stand pipes in the villages. It is also taken into a few of the houses. The reservoir requires some additional work, as it is not quite properly protected from surface washings.

DRAINAGE. Ridgway, Colebrook, Underwood, and Plympton St. Maurice have a system of sewers from which the sewage is disposed of by irrigation over grass land. Considerable improvements and additions have been made in the sewers during the year, for which please refer to the Sanitary Inspector's Report.

Hemerdon. This is sewered, and the sewage disposed of by land irrigation.

Lee Mill. The village is well sewered, the sewers discharging into a public cess-pit, from whence the effluent is irrigated over the land.

The sewer should be extended, and the cess-pit so removed further from the houses.

Venton. This is partly sewered, the remaining part has earth closets.

Sparkwell. This is sewered, the sewers discharge directly on to the land and is disposed of by irrigation. The sewers require ventilation.

SHAUGH PRIOR (Shaugh). THE WATER SUPPLY. This is good and ample, being derived from springs and wells or small streams direct from adjoining moor.

DRAINAGE. There is no system of sewers, nor do I think one is desirable. The houses are provided with earth or cess-pit closets, and slop water is disposed of on the gardens.

Lee Moor. **THE WATER SUPPLY** is abundant in quantity and good in quality. It is derived from the adjoining moor, and is distributed to most of the houses from a reservoir and a good service of pipes. Such houses as are not connected with the pipes have independent supplies.

DRAINAGE. There is no public system of sewers, nor is one required. The majority of the houses are provided with earth closets, and have good gardens attached. The schools and a small block of houses surrounding them are provided with water closets, the sewage from which is irrigated over adjoining land.

YEALMPTON (Yealmpton). **THE WATER SUPPLY** is a public one. The water is derived from springs situated at a high level and in grass land. A large area of the land around the springs is, by agreement, kept free from manure. The water is of good quality, and as far as present experience goes, is of sufficient quantity. It is distributed through the village from a series of standpipes.

DRAINAGE. This is not at all good. Most of the sewers are old and of unknown construction, except a few which have been laid during recent years which are good. The sewers discharge into cess-pits, from which the effluent is irrigated over the adjoining land. It is proposed during the coming year to improve both the cess-pits and the irrigation.

Yealmbridge **THE WATER SUPPLY** is bad. It is derived from wells which are markedly affected by the condition of the adjoining river. I think this hamlet should obtain water from the public supply of Yealmpton, or if this be too

costly or impossible, that search should be made for a small independent supply.

DRAINAGE. There is no system of sewers. The houses are supplied with earth or cess-pit closets.

Dunstone. The **WATER SUPPLY** is very good both as regards quantity and quality. It is a public one, and is derived from springs situated at a considerable level above and distance from the village. It is distributed from stand pipes.

DRAINAGE. There is a system of sewers from which the sewage is irrigated over land.

REPORT OF THE SANITARY INSPECTOR
FOR THE YEAR, 1902.

Brixton. The public cess-pits have been cleaned out, and the overflows therefrom cleared and limed. The sewer in Horn Barn Lane which was choked has been cleared.

In **Spriddlestone** village the public pump has been repaired and two new earth closets erected, and the drains of Spriddlestone House put in order.

At Blackpool a new pump has been fixed to the well which was sunk in 1901.

During the year negotiations have been made with certain landowners with a view to obtaining easements for the purpose of improving the drainage of this village, and there is great probability of such easements being obtained.

Compton Gifford. The public cess-pit has been cleaned out frequently during the year, and the covering improved. The overflow has been attended to and diverted from its old channel, so that it does not now accumulate on the Pearn Trust property, but is largely disposed of by percolating through and into a rubble bank.

Cornwood. The Reservoirs at Cornwood and Lutton have been cleaned out and the water mains scoured. From Cornwood mains a considerable amount of iron rust was removed, and from the Lutton mains the deposit consisted of reddish debris from the collecting grounds.

At **Torre** the well has been cleaned out, but it still needs better protection from surface pollution.

In **Cornwood** and **Lutton** the public cess-pits have been cleaned out and improved covers applied.

Ermington. A new main sewer has been put down to drain the western side of this village, and a sewage tank constructed to receive the sewage. Notices have been served on several owners to provide water closets, and thus abate nuisances due to existing privies.

At **Keaton Cottages** the drain has been repaired, whilst at **Cadleigh Park** the cess-pit has been cleaned out. In **Ermington** village the public well has been cleaned, and a new overflow drain provided.

Egg Buckland. The public cess-pit has been cleaned out when necessary, and the sewers throughout the village have been flushed at intervals. New drains have been made for 11 and 12 **Rose Cottages**, and drains repaired at **Widey Farm**. Nuisances at **Bearsdown** and **Widey Lodge** have been abated.

At **Widey Cottages** a dangerous shallow dipping well has been abandoned, and water laid on from the public supply, and the water supply at **Derriford Farm** has been protected from surface pollution.

Holbeton. A new main sewer has been carried up the **Vicarage Hill** in the place of a defective wall drain. This has been provided with a six inch ventilating shaft 25 feet high, and fixed at the head of the drain. The sewers at **Whitemoor Cross** and **Church Hill** have been extended and provided with suitable ventilating shafts.

The local landowner, F. Mildmay, Esq., has, at his own cost, laid down five different sections of well constructed and ventilated drains, and provided them with two large rain-water tanks for flushing.

To the above new sewers 34 house connections have been made, ten old drains have been repaired, and 44 new gully traps have been put down. Fourteen earth closets have also been erected in the place of old privies.

Newton Ferrers. At the Towers new drains have been laid down, and at Torre a nuisance due to sewage accumulation has been abated.

For Torre Hamlet an arrangement has been entered into with J. C. Williams, Esq., by which a great improvement and addition will be made to the water supply. It is proposed also to build a new reservoir, for which a contract has been signed and the work has just been commenced.

Plymstock. An agreement has been arranged with the Duke of Bedford by which a sewer will be constructed from the Post Office corner to Elmleigh House and thence into a field occupied by Mr. Northcott, where it is proposed to irrigate the sewage over the land. By this a long standing nuisance will be abated.

Staddiscombe. The water supply during the year has been ample, but the new pump has not worked so satisfactorily as I could wish, and the contractor is now engaged in repairing it.

Elburton. A nuisance due to overflowing cess-pits has been abated, and Harleigh House has been supplied with the public water.

Oreston. A new sewer has been put down in Turnquay Lane, and six houses so provided with efficient drainage.

The public water supply has been laid on to the houses at East End.

Hooe. For Mr. Coleman's cottages three new water-closets have been erected, and a frequently recurring nuisance from old privies abolished.

Turnchapel. The Infant Schools have been provided with new trough closets and a urinal. These are detached from the school buildings and provided with an effective flushing apparatus. The sanitary accommodation at these schools can now be described as good, The sewer discharges, as all other sewers in the village do, on the foreshore.

Plympton St. Mary. New sewers have been laid down in Station Hill and Lucas' Lane, and in front of Mr. Coles' cottages, Colebrook. By this work three joint cess-pits have been abolished, and several new sanitary conveniences erected in their place. New drains have also been laid in Ridgway, Colebrook, and Underwood.

Lee Mill. The cess-pit has been cleaned, some defects in the main sewer repaired, and the drains from Messrs. Harpers', Turpin's, and Vigur's cottages put in order.

Sparkwell. The main sewer has been repaired. It should now be ventilated. At Newton's Row sanitary conveniences and drains have been put in order.

Venton. In the west end of this village a new sewer has been put down in the place of an old and defective one, and three gully traps have been provided, by which a long

standing nuisance, due to slop water being thrown on the highway, has been abolished. Two closets have been erected and new drains for two cottages.

Hemerdon, The outfalls of the sewers have been kept clean.

Plympton St. Maurice. A new sewer has been put down at the back of Caroline Place and the sewer repaired in Longbrook Street. New drains and sanitary conveniences have been provided for five houses.

A new slaughter house has been erected, and proceedings taken against one occupier for using a building as a slaughter house without a licence, and a conviction obtained. Reports have been made to the Works Committee, pointing out the desirability of preventing the storm water entering the sewers, and I am glad to say the matter is now receiving the attention of the Highway Authority.

Wembury. In Knighton Village the cess-pit has been cleaned and the sewer flushed, and an old sewer repaired.

In Downton the pumps have been repaired, and new sanitary arrangements provided at Paige's Farm.

Shaugh Prior. At Lee Moor six new water closets have been erected, and drains put in order.

Tamerton Folliott. A new sewer has been put down, about two-thirds the length of Seven Stars Lane, in place of two defective sewers. This sewer should be extended to the end of the lane, and then at a right angle up through Rocky Hill. If this were done the public schools and houses opposite could be satisfactorily drained.

The sewers throughout the village have been regularly flushed.

Some new drains have been put down for private property, and new closets erected or old ones put in order.

At **Franklin Cottages** a nuisance due to storm water has been dealt with by preventing such water entering the cess-pit.

St. Budeaux.

Crownhill. The sewer outfalls have been regularly cleaned, and the cess-pits emptied as occasion required.

In Willow Lane the drain has been repaired.

Honicknowle. The sewers have been regularly flushed, and continuous attention has been given to the cess-pit and the filter beds.

Yealmpton. Several new earth closets have been erected, and many old cess-pits have been thus abolished. A considerable number of slop-water drains have been put down, and others put in good order.

At Dunstone a piece of new sewer has been put down.

Dairies, Cowsheds, and Milkshops. The total number of applications received under these orders is 171. All the buildings have been inspected, and 33 were found to comply with the regulations, and were therefore certified and registered as follows :—

| | | |
|----------------------|--------|----|
| Dairies and Cowsheds | .. | 16 |
| Dairies only | | 8 |
| Cowshed only | | 7 |
| Milkshops only | | 2 |

In 133 cases disapproval notices were sent out, each notice stating what defects were detected, and describing the work necessary to remedy the same. Of these seven complied with the requests and are now ready for registration. Of the remainder a very large proportion of the owners and occupiers have expressed their willingness to carry out the required alterations, and will, I hope, do so during the coming spring and summer.

Seven new cowsheds have been erected, or are in course of erection, and it is probable that several owners will, during the coming year, prefer to erect new sheds rather than renovate or alter the existing buildings.

I am, Gentlemen,

Your obedient Servant,

WM. E. HORTON,

Sanitary Inspector.



*Houses Erected and Water Certificates
granted.*

| | | | | |
|-------------------|-----|-----|-----|----|
| Brixton ... | ... | ... | ... | 1 |
| Ermington | ... | ... | ... | 2 |
| Newton Ferrers | ... | ... | ... | 3 |
| Plymstock | ... | ... | ... | 7 |
| Plympton St. Mary | ... | ... | ... | 11 |
| Yealmpton | ... | ... | ... | 2 |
| Weston Peverell | ... | ... | ... | 1 |

27

| | | |
|--|-----|-----|
| Closets erected or put in good order | ... | 90 |
| Defective drains relaid and piped to sewer | ... | 146 |
| General nuisances abated | ... | 4 |
| Houses or rooms fumigated | ... | 70 |
| Drains tested with smoke test | ... | 19 |
| Drains tested with water | ... | 2 |

List of Places where Disinfectants are kept.

And may be obtained FREE OF COST.

| | | | | |
|-------------------|----|------------------|----|------------------------------------|
| Bickleigh | .. | Roborough | .. | Mr. Rouse |
| Brixton | .. | | .. | Mr. Stone |
| Cornwood | .. | Cornwood Village | .. | Mr. Shepherd |
| Egg Buckland | .. | .. | .. | Mr. Ben Corber |
| Weston Peverell | .. | Weston Mill | .. | Mr. Petherick |
| Plympton St. Mary | .. | | .. | Mr. Horton (Sanitary Inspector) |
| | | Underwood | .. | Mr. J. Symons |
| | | Sparkwell | .. | The Post Office |
| | | Lee Mill | .. | Mr. R. Harper |
| | | Colebrook | .. | Mr. R. Triscott |
| St. Budeaux | .. | Honicknowle | .. | Mr. Fairweather |
| | | „ | .. | Mr. Shears |
| | | Crownhill | .. | Dr. Olver |
| | | | | Mr. Stephens (Coachbuilder) |
| Shaugh | .. | .. | .. | The Post Office |
| Tamerton | .. | .. | .. | The Post Office |
| Ermington | .. | .. | .. | Mr. T. Worth |
| | | Cadleigh Park | .. | Mr. Stoneman |
| Holbeton | .. | .. | .. | Mr. W. Cause |
| Newton Ferrers | .. | .. | .. | Mr. E. Horton |
| Wembury | .. | .. | .. | Post Office |
| Yealmpton | .. | .. | .. | Mr. Lee |
| | | | | Dr. Langworthy |
| | | Dunstone | .. | Mr. Webb |
| Plymstock | .. | .. | .. | Dr. Scott |
| | | Oreston | .. | Mr. W. Coom |
| | | Pomphlett | .. | Miss Jacob |
| | | Elburton | .. | Mr. Coleman |
| | | Hooe | .. | Mr. A. Maddick |
| | | Turnchapel | .. | Mr. Bennett |
| | | Staddiscombe | .. | Mr. J. Dodridge |



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